

REMARKS

In view of the following remarks, the Examiner is respectfully requested to allow claims 22-29, 32-35, and 37-39 the only claims pending and currently under examination in this application.

Claim Rejections - 35 U.S.C. § 103

Claims 22-29, 32-34, and 37-39 continue to be rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Kurdi in view of Mandell (U.S. Patent No. 3,335,088) and further in view of Homan (U.S. Patent No. 4,347,336), Lee (U.S. Patent No. 6,124,407), or Wong (U.S. Patent No. 5,051,275).

In continuing to maintain this rejection, the Office cites the following references: (1) Kurdi for teaching a method for forming a slider assembly; (2) Mandell for teaching that a silicon elastomer based resin is functionally equivalent to a acrylic or epoxy based resin; (3) Homan, Lee, and Wong for providing exemplary silicon elastomer resins comprising an organosilicon material used as encapsulants for electronics.

However, as presented in the previous response to the office action, claim 22, and the claims dependent there from, is directed to a method for forming a slider assembly. The method includes arranging a plurality of sliders each having a surface such that the surfaces are coplanar to each other, dispensing an organosilicon material encapsulant fluid in a manner effective to fill gaps or recesses between the sliders without contacting the coplanar slider surfaces, and subjecting the dispensed encapsulant fluid to a curing temperature from about 150° C to about 200° C, which is effective for the fluid to form a readily debondable solid encapsulant comprising an organosilicon material. Accordingly, an element of the rejected claims is a readily debondable solid encapsulant comprising an organosilicon material.

As set forth below, the Applicants submit that none of the cited references, alone or in combination, teach or suggest a method for forming a slider assembly comprising a debondable solid encapsulant comprising an organosilicon material.

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, ___, 82 USPQ2d 1385, 1395-97 (2007) identified a number of rationales to support a conclusion of obviousness which are consistent with the proper "functional approach" to the determination of obviousness as laid down in Graham. According to the holding, the key to supporting any

rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit.

The M.P.E.P. § 2143 provides clear guidance on the requirements which must be articulated by an Examiner to establish a *prima facie case* of obviousness. Firstly, the Examiner must articulate a finding that all of the claimed elements were known in the prior art. Second, that one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and thirdly, that the combination yielded nothing more than predictable results to one of ordinary skill in the art.

However, if any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art (MPEP *Id*).

Kurdi describes a method for preparing the air bearing surface of a slider for etch patterning which employs a fluid comprising a resin component and a curing agent that includes epoxy, thiol, olefin, and acrylic functionality as well as mixtures thereof. However, nowhere does the reference teach or suggest that the fluid included in the methods comprises a organosilicon material as recited in the pending claims. Further, the Office acknowledges that Kurdi is deficient in that Kurdi does not teach a silicon-based debondable encapsulant. Thus, as acknowledged by the Office, Kurdi fails to even recite the element of a debondable solid encapsulant comprising an organosilicon material and accordingly, fails to teach each and every element of the present claims.

According to the Office Action, the Office is relying on Mandell for teaching that a silicon elastomer based resin is functionally equivalent to a acrylic or epoxy based resin. Specifically, the Office asserts that "...it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the removable/debondable resin in Kurdi a silicon elastomer material which was well taken as functionally equivalent to acrylic and epoxy in the art of removable/debondable resins as shown by Mandell" (Final Office Action, p. 3). The Applicants respectfully disagree.

A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were

individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). * * * >[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." KSR, 550 U.S. at ___, 82 USPQ2d at 1396 quoting In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).*MPEP 2143.01..*

Mandell is directed to a method of stripping resins by administering anhydrous hydrofluoric acid to remove resin coatings, glues, foams and encapsulating media, especially those which are epoxy or urethane-based. The Applicants maintain that simply because one or more of an acrylic, epoxy, and silicon elastomer may be equivalents with respect to the fact that they may all be removed from the surface of a substrate when contacted with hydrofluoric acid, as disclosed in Mandell, this in turn does not mean that a silicone elastomer is the functional equivalent of an acrylic or epoxy resin as those resins are employed in Kurdi. Specifically, upon reading Mandell, one of skill in the art would not be led to expect that acrylic, epoxy, and silicon elastomers would function equally well as encapsulants, nor would one expect that they could be removed as easily without employing hydrofluoric acid to effectuate such removal.

Applicants first submit that Mandell fails to teach or suggest the use of such a resin remover in the electrical arts, let alone that any part of its disclosure may be applicable to methods of manufacturing air-bearing sliders in magnetic recording discs. Therefore, Mandell provides no teaching which would provide one of skill in the art with an objective reasoning to combine the teachings of Mandell with the methods taught by Kurdi. For example, Mandell specifically states that "A major portion of the demand for more effective coating removal agents originates in the field of air transportation, both military and civilian. Increases in the altitude and speed of aircraft, space vehicles and capsules have required exterior surface coatings with greater resistance to abrasion and high temperatures, met largely by the use of epoxy-and urethane-based coatings which have a relatively high degree of cross-linking" (col. 1, lines 35-52). As such, Mandell is clearly describing methods and compositions for stripping paint and primer coatings from military and commercial aircraft which is hardly equivalent to the electronic arts.

In addition, Mandell provides a detailed description of exemplary methods for removing the resins at col. 5, line 60 to col. 6, line 5. Such methods are described as “dipping the resin-covered substrate into the compositions” or “by spraying or flowing the compositions over the resin coating.” Applicants contend that the skilled artisan would fully realize that such descriptions can hardly be equated to methods of removing resins during the manufacture of a slider assembly as in the present invention. Mandell goes on to state that “a valuable feature of the action of the compositions of the present invention is that the removal of the paint from the surface is accomplished rapidly in large pieces which easily slough off...”(col. 5, lines 30-34).

Further, all of the Examples provided in Mandell are directed to methods of measuring paint stripping agents on a substrate which includes the hydrofluoric acid compositions of Mandell. Accordingly, Mandell is directed to a paint stripper which is used to remove paint and primer from commercial and government vehicles. Contrary to the Office’s assertion, Applicants contend that the mere fact that Mandell recites terms such as “resin” and “epoxies” is not an objective reason to combine the teachings of the references. Therefore, Applicants submit that such a disclosure fails to provide one of skill in the art with objective reasoning to combine the teachings of Mandell with Kurdi.

Thus, one of skill in the art would not find it obvious to modify Mandell because the reference fails to provide any motivation or suggestion which would lead the skilled artisan to combine a paint stripper as taught by Mandell with a method of manufacturing a slider as recited in Kurdi.

Although Mandell provides exemplary data directed to methods of testing the effectiveness of paint strippers to remove paint and primer, the reference fails to provide any methods of manufacturing a slider assembly by dispensing a debondable solid encapsulant comprising an organosilicon material as in the present case.

Moreover, Mandell fails to provide the skilled artisan with a reasonable expectation that a debondable solid encapsulant comprising an organosilicon material would be successful in methods of manufacturing a slider assembly. As Mandell provides no guidance for one of ordinary skill in the art to employ an organosilicon material in manufacturing a slider assembly, Applicants submit that Mandell fails to provide a disclosure in which a person of ordinary skill in the art would be enabled to carry out the methods of the present claims.

As Mandell neither teaches nor suggests method for forming a slider assembly by dispensing a debondable solid encapsulant comprising an organosilicon material, the reference fails to remedy the deficiency of Kurdi because it too fails to teach or suggest each and every element of the present claims. In view of the above discussion, Applicants submit that the Office has failed to articulate a rational underpinning to support a legal conclusion of obviousness. For this reason alone this rejection may be withdrawn.

Nonetheless, the Applicants further contend that the Office erroneously attempts to rely upon Mandell because the reference does not stand for the proposition that epoxy resins and silicon based encapsulants are to any extent functional equivalents as Mandell does not address the functionality of either element. Applicants maintain, as presented in the previous response, that cured epoxy materials, e.g., pure thermosetting epoxy resins, such as those disclosed in Kurdi, can be removed from sliders only with great difficulty and often with leaving significant material residue on the slider surfaces. See the Applicants' specification at paragraph 7. Thus, in this regard the resins disclosed in Kurdi are not in fact functional equivalents to the presently claimed organosilicon material encapsulants, and contrary to the assertion of the Office, it is not "well taken in the art of removable/debondable encapsulants that acrylic, epoxy, and silicon elastomer based encapsulants are functionally equivalent. Accordingly, the Applicants submit that for this reason alone this rejection may be withdrawn.

Homan, Lee and Wong are cited for their alleged disclosure of silicone elastomers as encapsulants that cure at 150° C. In further citing these references, the Office asserts that "none of Homan, Lee, or Wong '275 discloses the silicon elastomer resins/encapsulants are permanent and non-debondable. Further, Mandell teaches that such materials are debondable" (Final Office Action, p. 8). As such, it appears that the Office is alleging that any of the encapsulants as taught by Homan, Lee or Wong'275 may readily be substituted in the methods of Mandell regardless of whether the encapsulant is bondable or de-bondable.

The M.P.E.P. § 2143.01 makes clear that any proposed modification of a prior art invention cannot render the prior art invention unsatisfactory for its intended purpose. Still further, the proposed modification cannot change the principle operation of a reference. Otherwise, there is no suggestion or motivation to combine the cited references.

Homan discloses an encapsulant that is designed to impregnate an electrical coil and thereby act as an insulator therefore. See column 6, lines 23-25. Lee discloses an encapsulant

that is designed to protect electronic devices from the environment. See column 1, lines 19-22. Wong discloses an encapsulant designed for protecting electronic devices. See column 1, lines 6-9. Accordingly, each of the cited references is directed to a permanent, "non-debondable" encapsulant.

Applicants submit that a *prima facie* case of obviousness cannot be established because no suggestion or motivation can be found to combine the teachings of Homan, Lee, or Wong with the teachings of Kurdi to make the combination of claimed components because such a combination would render the compositions in Homan, Lee, or Wong debondable or the encapsulant in Kurdi non-debondable and thus unsatisfactory for their intended purposes. As such a combination would render the inventions of these references unsatisfactory for their intended purposes, no suggestion or motivation can be found to make such modifications. Accordingly, a *prima facie* case of obviousness cannot be established for at least this reason.

Accordingly, in view of the above, a *prima facie* case of obviousness has not been established with respect to Claims 22-29, 32-34, and 37-39 and the Applicants respectfully request that this rejection be withdrawn.

Claim 35 continues to be rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Kurdi in view of Mandell and Lee or Wong and further in view of Joffre et al. (U.S. Patent No. 5,840,800) and Wong (U.S. Patent No. 4,564,562).

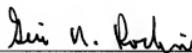
Claim 35 ultimately depends from Claim 22. Accordingly, the remarks set forth above with respect to Kurdi in view of Mandell and Lee or Wong apply with equal force to the rejection of Claim 35. Additionally, the Applicants contend that a *prima facie* case of obviousness has not been established because the Office has not set forth a reasoning as to how Joffre stands for the proposition that metallic and amino based catalysts are functionally equivalent, nor has the Office set forth any reasoning whatsoever as to why or how one of ordinary skill in the art could have substituted the metallic catalyst of Lee or Wong for the amino based catalysts of Joffre and expected that the results of the substitution would have been predictable. Without these findings, a *prima facie* case of obviousness has not been established, and the Applicants, therefore, respectfully request that this rejection be withdrawn.

CONCLUSION

Applicants respectfully submit that the application is in condition for allowance and request an allowance for same. Please charge any fees due or credit any overpayment to the undersigned's Deposit Account No. 18-0580, Reference No. HSJ9-2003-0022US1.

Respectfully submitted,

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